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EXAMINER	
BODDIE, WILLIAM	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/664,080	YOSHIHARA, KEIICHIRO	
	Examiner	Art Unit	
	WILLIAM L. BODDIE	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 September 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/21/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. In an amendment dated September 21st, 2009 the Applicant added new claim 26. Claims 1-26 are currently pending.

Response to Arguments

2. Applicant's arguments with respect to claim 1-25 have been fully considered but they are not persuasive.

3. On pages 11-13 of the Remarks the Applicant argues that Stephan does not disclose a guide portion of the touch sensor. Specifically the Applicant argues that Stephan does not teach incorporating the ridges of Stephan's figure 7 embodiment into the touchscreen in the figure 13 embodiment.

The Examiner must respectfully disagree. The disclosure of Stephan seems quite clearly to contemplate incorporating the guide portions of the figure 7 embodiment into the touchscreen in figure 13. Column 12, lines 25-43 state that, "the touchpad designs [i.e. fig. 7 embodiment] may be directly incorporated into a computer keyboard or housing;" and that the figure 13 display screen regions "may be designated with visual or **tactile** cues as discussed above" (emphasis added). The tactile cues referred to are those discussed in the figure 7 embodiment. There seems to be little question that Stephan actively considered the addition of tactile guide portions to the figure 13 touchscreen.

As shown above the rejection is seen as proper and is thus maintained.

4. Applicant's arguments with respect to claim 26 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-4, 6-7, 11, 14-16, 20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephan (US 5,748,185) in view of Debrus et al. (US 5,598,527) and further in view of Rowe (US 6,559,833).

With respect to claim 1, Stephan discloses, an electronic equipment (fig. 13) comprising:

a display device configured to display information (laptop screen in fig. 13) and including a display surface (284 in fig. 13);

a touch sensor (284, 286, 288 in fig. 13) arranged on at least part of the display surface (clear from fig. 13; col. 12, lines 35-43);

a guide portion (tactile cues; col. 12, lines 35-43) configured to protrude from a surface of the touch sensor and to fringe the surface with a line (192, 194 in fig. 7); and

a controller (110 in fig. 3) configured to control an adjustment value (direction of movement and increment of movement) in accordance with a direction of a slide operation along said guide portion from a reference position (fig. 4-5; also note col. 7, lines 38-66; which notes that the coordinates transmitted are relative to a reference position).

Stephan does not expressly disclose a guide portion containing one of a plurality of concave portions and a plurality of convex portions.

Debrus discloses, an electronic equipment (fig. 1) comprising:

a display device configured to display information (9 in fig. 1) and including a display surface (9 in fig. 1);

a touch sensor arranged alongside the display surface (46 in fig. 1);

a guide portion (note the outer edges of the touch screen, 21-31 in fig. 1) configured to protrude from a surface of the touch sensor (edges of 10 in fig. 5) and to fringe the surface with a line configured by one of a plurality of concave portions (fig. 1) and a plurality of convex portions as a whole, including a reference position (each function 36a-f in fig. 2b; col. 3, lines 57-63), provided for each of the one of the plurality of concave portions and plurality of convex portions (labels for each detent in fig. 1), on a surface of the touch sensor graphically identified on said display surface (note the graphics “Next page” and “Prev page”, for example) and located between a vertex and a center of one of the plurality of concave portions and the plurality of convex portions (fig. 1); and

a controller (fig. 4) configured to control a user interface in accordance with a touch screen location corresponding to a reference position (col. 6, lines 7-33).

Debrus and Stephan are analogous art because they are both from the same field of endeavor namely visual cues to augment touch sensor devices.

At the time of the invention it would have been obvious to one of ordinary skill in the art to replace the textured edges of Stephan with the plurality of concave portions taught by Debrus.

The motivation for doing so would have been to facilitate the centering of the finger on the switching zones (Debrus; col. 3, lines 60-63).

To summarize, Stephan teaches applying tactile cues along the sides of touch screen displays. Stephan does not go in-depth into the numerous shapes, sizes and types of tactile cues that can be provided on the sides of the touch screen display. Debrus teaches a multi-curved edge touch screen. It would have been obvious to replace the rough edges of Stephan with the scalloped edges of Debrus.

Neither Stephan nor Debrus expressly disclose wherein the reference position is fixed.

Rowe discloses, a touchpad (fig. 2) wherein a fixed reference position (25 in fig. 2) graphically identified on a touchpad (col. 3, lines 15-20) is located between a middle of the bottom of the touchpad and a center of the bottom of the touchpad and a controller is configured to control an adjustment value in accordance with a direction of a slide operation from the fixed reference position (fig. 3);

wherein said adjustment value is controlled after said fixed reference position is depressed by a touch operation (122 in fig. 3).

Rowe, Debrus and Stephan are analogous art because they are both from the same field of endeavor namely touch sensor device orientation and layout.

At the time of the invention it would have been obvious to one of ordinary skill in the art to replace the relative reference position of Stephan and Debrus with the fixed reference position of Rowe.

The motivation for doing so would have been to provide a more intuitive interface for the user as well as to provide for fine movements (Rowe; col. 1, lines 30-37).

With respect to claim 2, Stephan, Rowe and Debrus disclose, the electronic equipment in claim 1 (see above).

Rowe further discloses, wherein the controller (5 in fig. 1) sets the adjustment value to a predetermined reference value when the fixed reference position is depressed (should be clear from col. 4, lines 50-55; wherein it is disclosed that the rate of scrolling (adjustment value) is determined based on the distance from the reference position).

With respect to claim 3, Stephan, Debrus and Rowe disclose, the electronic equipment as claimed in claim 2 (see above).

Rowe further discloses, where the controller changes the adjustment value (rate of scrolling) from a reference value when the slide operation is performed after the fixed reference position is depressed (again this limitation should be clear from col. 4, lines 50-55; see above discussion in claim 2 rejection).

With respect to claim 4, Stephan, Rowe and Debrus disclose, the electronic equipment as claimed in claim 1 (see above).

Debrus, when combined with Stephan and Rowe, further discloses, a notification unit (display 9 in fig. 1) configured to provide a notification that the fixed reference

position is depressed (Debrus teaches that depression of a reference position (buttons in fig. 1) alters the displayed graphics on screen 9, thereby providing notification to the user that the position has been depressed).

With respect to claim 6, Stephan, Rowe and Debrus disclose, the electronic equipment as claimed in claim 1 (see above).

Stephan further discloses, wherein said touch sensor includes one of a display function (pan and scroll) and a switch function (note the discussion of a menu bar or a tool bar; col. 12, lines 50-53).

With respect to claim 7, Stephan, Rowe and Debrus disclose, the electronic equipment as claimed in claim 1 (see above).

Stephan further discloses, wherein said touch sensor (288 and 286 in fig. 13) arranged on said at least a part of said display surface (284 in fig. 13) is configured to be proximate to said guide portion (note the relationship between the guide portion, 192, and the touch sensor in fig. 7; as discussed by Stephan this relationship will be carried over to the touchscreen embodiment; col. 12, lines 40-42).

With respect to claim 11, Stephan discloses, a method of controlling electronic equipment (figs. 4-5), a touch sensor (284,286,288 in fig. 13) arranged on at least a part of a display surface (laptop screen in fig. 13), a guide portion (192 in fig. 7; col. 12, lines 40-41) configured to protrude from a surface of said touch sensor and to fringe said surface with a line, including a reference position on a surface of the touch sensor graphically identified on said display surface (note the graphics in fig. 2b, for example) and located between a vertex and said line (col. 7, lines 38-66; Stephan discloses

transmitting x and y coordinates that are indicative of the relative movement of the contact point (col. 8, lines 19-22)), said method comprising:

guiding a finger along said guide portion (col. 3, lines 57-64); and

receiving a contact input on said surface of said touch sensor based on guiding said finger along said guide portion (col. 8, lines 10-19; for example).

Stephan does not expressly disclose that the guide portion is configured by one of a concave portion and a convex portion as a whole, including locating a reference position between a vertex and a center of one of said concave and said convex portion, said method comprising:

guiding a finger along said guide portion to said reference position; and,

receiving a contact input on said surface of said touch sensor adjacent to said reference position based on guiding said finger along said guide portion to said reference position.

Debrus discloses a guide portion (note the outer edges of the touch screen) configured to fringe the surface with a line configured by one of a plurality of concave portions and a plurality of convex portions as a whole (clear from fig. 1), including a reference position (each function 36a-f in fig. 2b; col. 3, lines 57-63), provided for each of the one of the plurality of concave portions and plurality of convex portions (labels for each detent in fig. 1), on a surface of the touch sensor located between a vertex and a center of one of said concave portion and said convex portion (fig. 1), furthermore;

guiding a finger along said guide portion to said reference position (col. 3, lines 59-64) and,

receiving a contact input on said surface of said touch sensor adjacent to said reference position based on guiding said finger along said guide portion to said reference position (col. 3, lines 57-63).

At the time of the invention it would have been obvious to one of ordinary skill in the art to replace the textured edges of Stephan with the plurality of concave portions taught by Debrus.

The motivation for doing so would have been to facilitate the centering of the finger on the switching zones (Debrus; col. 3, lines 60-63).

To summarize, Stephan teaches applying tactile cues along the sides of touch screen displays. Stephan does not go in-depth into the numerous shapes, sizes and types of tactile cues that can be provided on the sides of the touch screen display. Debrus teaches a curved edge touch screen. It would have been obvious to include the curved guide edges and reference positioning that Debrus discloses in the protruding guide touchscreen embodiment of Stephan.

Neither Stephan nor Debrus expressly disclose wherein the reference position is fixed.

Rowe discloses, a touchpad (fig. 2) wherein a fixed reference position (25 in fig. 2) graphically identified on said touchpad (col. 3, lines 15-20) is located between a middle of the bottom of the touchpad and a center of the bottom of the touchpad and a controller is configured to control an adjustment value in accordance with a direction of a slide operation from the fixed reference position (fig. 3);

wherein said adjustment value is controlled after said fixed reference position is depressed by a touch operation (122 in fig. 3).

Rowe, Debrus and Stephan are analogous art because they are both from the same field of endeavor namely touch sensor device orientation and layout.

At the time of the invention it would have been obvious to one of ordinary skill in the art to replace the relative reference position of Stephan and Debrus with the fixed reference position of Rowe.

The motivation for doing so would have been to provide a more intuitive interface for the user as well as to provide for fine movements (Rowe; col. 1, lines 30-37).

With respect to claim 14, Stephan, Rowe and Debrus disclose, the method of controlling electronic equipment as claimed in claim 11 (see above).

Stephan, as modified by Rowe and Debrus, discloses, receiving sliding contact input on said surface of said touch sensor adjacent to said fixed reference position (Debrus; col. 6, lines 8-24) and,

inputting said adjustment value to a controller based on receiving said sliding contact input (Debrus; col. 6, lines 8-24).

With respect to claims 15 and 16, Stephan, Rowe and Debrus disclose, the method of controlling electronic equipment as claimed in claim 14 (see above).

Stephen further discloses, wherein receiving sliding contact input on said surface of said touch sensor in a first direction inputs a positive adjustment value to said controller, in a second direction inputs a negative adjustment value (130 in fig. 4, 140, 142 in fig. 5; col. 7, lines 39-59).

With respect to claim 20, claim 20 is seen as containing the same limitations as those recited in claim 1. Therefore claim 20 is rejected on the same merits shown above in the rejection of claim 1.

With respect to claim 25, Stephan, Rowe and Debrus disclose, the method of controlling electronic equipment as claimed in claim 1 (see above).

Debrus further discloses, wherein said plurality of concave portions are arranged along a straight line (fig. 1).

7. Claim 5 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephan (US 5,748,185) in view of Debrus et al. (US 5,598,527) and Rowe (US 6,559,833) and further in view of Vanderheiden (US 6,049,328).

With respect to claim 5, Stephan, Rowe and Debrus disclose, the electronic equipment of claim 1 (see above).

Stephan further discloses, that the functions to which the user can control may be varied based on the particular application program (col. 12, lines 53-55).

However, neither Stephan, Rowe nor Debrus expressly disclose, controlling an adjustment value (On or Off) of an output level of an acoustic signal (col. 6, lines 29-45).

Vanderheiden discloses, a touch screen device having a concave and convex guide portion (200 in fig. 2), wherein the sliding motion controls an adjustment value (On or Off) of an output level of an acoustic signal (col. 6, lines 29-45).

Vanderheiden, Rowe, Debrus and Stephan are analogous art because they are all from the same field of endeavor namely tactile and visual cues to augment touch sensor devices.

It would have been obvious to one of ordinary skill in the art to enable the touch screen device of Rowe, Debrus and Stephan to control an adjustment value of an acoustic signal as taught by Vanderheiden.

The motivation for doing so would have been to make the device more user-friendly for use by people with disabilities, i.e. the visually impaired (Vanderheiden; col. 1, lines 8-11).

With respect to claim 8, Stephan, Rowe and Debrus disclose, the electronic equipment as claimed in claim 1 (see above).

Rowe further discloses, visual cues (25 in fig. 2) wherein said visual cues correspond to said fixed reference position (col. 3, lines 15-20)

Neither Stephan, Rowe nor Debrus expressly disclose that the graphical images are displayed on a display device that correspond to said fixed reference position.

Vanderheiden discloses, a graphical image that corresponds to a fixed reference position (center icon 46" in fig. 2; opposite the indent).

Vanderheiden, Stephan, Rowe and Debrus are analogous art because they are from the same field of endeavor namely, touch screen functionality and interfaces.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the graphical icon of Vanderheiden in the scroll bar graphics of Stephan, Rowe and Debrus.

The motivation for doing so would have well known advantages including allowing the user to quickly orient themselves when viewing the touch screen.

With respect to claim 9, Stephan, Vanderheiden, Rowe and Debrus disclose the electronic equipment as claimed in claim 8 (see above).

Vanderheiden further discloses, wherein the graphical image represents an initial value in a parameter adjustment range (col. 11, lines 58-63).

With respect to claim 10, Stephan, Debrus, Rowe and Vanderheiden disclose, the electronic equipment as claimed in claim 9 (see above).

Stephan as modified by Debrus, Rowe and Vanderheiden further discloses, second and third graphical images (Stephan; up/down arrows in fig. 11) displayed on said display device in said surface of said touch sensor on either side of said graphical image (Stephan; outlined box in fig. 11, for example), wherein said second and third graphical images represent one of a value to be increased (up arrow) and a value to be decreased (down arrow) from said initial value in a parameter adjustment range.

8. Claims 12-13 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephan (US 5,748,185) in view of Debrus et al. (US 5,598,527) and Rowe (US 6,559,833) and further in view of Vanderheiden (US 6,384,743).

With respect to claim 12, Stephan, Rowe and Debrus disclose, the electronic equipment as claimed in claim 11 (see above).

Stephan further discloses, visual cues (254, 256 in fig. 11) to the user as to the delineations in the regions (col. 12, lines 40-42).

Debrus further discloses, a graphical image (Print, Cursor etc. in fig. 1) displayed on said surface of said touch sensor (fig. 1), wherein said graphical image corresponds

to said reference position (note the above rejection of claim 11, wherein the reference position is seen as each function in the display).

Neither Stephan, Rowe nor Debrus expressly disclose that the graphical image represents an initial value in a parameter adjustment range or that it corresponds to said fixed reference position.

Vanderheiden discloses, a graphical image that represents an initial value in a parameter adjustment range and corresponds to a fixed reference position (center icon 46" in fig. 2; opposite the indent).

Vanderheiden, Stephan, Rowe and Debrus are analogous art because they are from the same field of endeavor namely, touch screen functionality and interfaces.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the graphical icon of Vanderheiden in the scroll bar graphics of Stephan, Rowe and Debrus.

The motivation for doing so would have well known advantages including to allow the user to quickly orient themselves when viewing the touch screen.

With respect to claim 13, Stephan, Debrus, Rowe and Vanderheiden disclose, the electronic equipment as claimed in claim 12 (see above).

Stephan as modified by Debrus, Rowe and Vanderheiden further discloses, second and third graphical images (Stephan; up/down arrows in fig. 11) displayed on said display device in said surface of said touch sensor on either side of said graphical image (Stephan; outlined box in fig. 11, for example), wherein said second and third

graphical images represent one of a value to be increased (up arrow) and a value to be decreased (down arrow) from said initial value in a parameter adjustment range.

With respect to claim 26, Stephan, Debrus and Rowe disclose the electronic equipment according to claim 1 (see above).

Stephan further discloses, a frame (280 in fig. 13), which holds the display device and the touch sensor (282, 284 in fig. 13),

wherein the frame has an opening through which the display surface of the display device is exposed (fig. 13),

wherein the guide portion is provided on the opening of the frame (192 in fig. 7), and

wherein the guide portion protrudes from the surface of the touch sensor (fig. 7; col. 12, lines 35-43).

Neither Stephan, Debrus, nor Rowe expressly disclose, wherein the guide portion protrudes from the surface of the touch sensor farther than the frame.

Vanderheiden discloses a guide portion (154 in fig. 9) protrudes from the surface of a touch sensor (150 in fig. 9) farther than the frame (152 in fig. 9; the 154 elements are described as "embossments" which indicate that they protrude farther than the frame; col. 11, line 10).

At the time of the invention it would have been obvious to one of ordinary skill in the art to protrude the guide portion of Stephan, Debrus and Rowe farther than the frame as taught by Vanderheiden to allow the user to quickly scan upward and downward without waiting for audio queues (Vanderheiden; col. 11, lines 10-14).

9. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephan (US 5,748,185) in view of Debrus et al. (US 5,598,527) and Rowe (US 6,559,833) and further in view of Serravalle, Jr. (US 4,631,525).

With respect to claim 17, Stephan, Rowe and Debrus disclose, the method of controlling electronic equipment as claimed in claim 11 (see above).

Neither Stephan, Rowe nor Debrus expressly disclose, storing a present value of an adjustment parameter in response to receiving said contact input on said surface of said touch sensor adjacent to said reference position.

Serravalle, Jr., discloses, storing in a register (98 in fig. 4) the present value of an adjustment parameter in response to receiving a contact input on a surface of a touch sensor (40, 60 in fig. 4) adjacent to a reference position (0 label for example).

Serravalle, Jr., Stephan, Rowe and Debrus are analogous art because they are both from the same field of endeavor namely touch sensor use and implementation.

At the time of the invention it would have been obvious to one of ordinary skill in the art to store the present value of Stephan, Rowe and Debrus as taught by Serravalle, Jr.

The motivation for doing so would have been to allow the comparison of two different locations of the user's touch (Serravalle, Jr.; col. 11, line 60 – col. 12, line 11).

To further explain, the combination of Serravalle, Jr. and Rowe would result in a teaching of storing a present value an adjustment parameter in response to receiving a contact input on the surface of a touch adjacent to the *fixed* reference position.

With respect to claim 18, Stephan, Debrus, Rowe and Serravalle, Jr. disclose, the method of controlling electronic equipment as claimed in claim 17 (see above).

Stephan further discloses, determining whether said slide operation is performed on said surface of said touch sensor (123, 125, 127 in fig. 4).

With respect to claim 19, Stephan, Debrus, Rowe and Serravalle, Jr. disclose, the method of controlling electronic equipment as claimed in claim 18 (see above).

Serravalle, Jr. further discloses, adding said adjustment value to said stored present value of an adjustment parameter in response to determining whether said slide operation is performed (col. 12, lines 28-37); and

controlling an output parameter based on adding said adjustment value to said stored present value of an adjustment parameter (col. 2, lines 22-30).

10. Claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephan (US 5,748,185) in view of Debrus et al. (US 5,598,527) and further in view of Rowe (US 6,559,833) and Takahashi (US 4,954,967).

With respect to claim 21, Stephan, Debrus and Rowe disclose, the electronic equipment according to claim 1 (see above).

Neither Stephan, Debrus nor Rowe expressly disclose, a storage unit which stores a current adjustment value when the fixed reference position is depressed.

Takahashi discloses a storage unit (21 in fig. 4) which stores a current adjustment value when a fixed reference position is depressed (102 in fig. 7).

Takahashi, Stephan, Rowe and Debrus are analogous art because they are both from the same field of endeavor namely touch sensor use and implementation.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the storage unit of Takahashi in the device of Stephan, Rowe and Debrus for the well-known benefit of comparison of the current adjustment value with future movements. Thereby determination of movement is achieved.

With respect to claim 22, Stephan, Debrus, Takahashi and Rowe disclose, the electronic equipment according to claim 21 (see above).

Takahashi further discloses, a timer (102 in fig. 7) which counts a predetermined time period from a time when a reference position is depressed (104 in fig. 7),

wherein the controller controls the adjustment value in accordance with the slide operation starting during the predetermined time period (106-114 in fig. 7).

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the timer of Takahashi in the device of Stephan, Rowe and Debrus to allow better determination of the direction of movement (Takahashi; col. 3, lines 37-42).

With respect to claim 23, Stephan, Debrus, Takahashi and Rowe disclose, the electronic equipment according to claim 22 (see above).

Stephan, when combined with Debrus, Takahashi and Rowe, further discloses, when the timer finishes counting of the predetermined time period, the controller sets the adjustment value to the current adjustment value stored in the storage unit if no slide operation is performed during the predetermined time period (Takahashi; No path of 104 in fig. 7; col. 3, lines 25-37).

With respect to claim 24, Stephan, Debrus, Takahashi and Rowe disclose, the electronic equipment according to claim 22 (see above).

Stephan, when combined with Debrus, Takahashi and Rowe, further discloses, when the timer finishes counting of the predetermined time period, the controller sets the adjustment value to a predetermined reference value if no slide operation is performed during the predetermined time period (Takahashi; No path of 104 in fig. 7; col. 3, lines 25-37).

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM L. BODDIE whose telephone number is (571)272-0666. The examiner can normally be reached on Monday through Friday, 7:30 - 4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/William L Boddie/
Examiner, Art Unit 2629
1/6/10

/Sumati Lefkowitz/
Supervisory Patent Examiner, Art Unit 2629